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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,105	02/01/2002	Bernard Beier	600.1205	6014

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EXAMINER

PHAM, HAI CHI

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 05/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,105

Applicant(s)

BEIER ET AL.

Examiner

Hai C Pham

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3 6) ☐ Other: ____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 2 is objected to because of the following informalities:
 - Line 5, "imagin" should read --imaging--.Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3;

- The limitation "the light sources producing imaging spots on the printing form having a spacing l of neighboring imaging spots, l being a multiple of a spacing p of two neighboring printing dots of the first and second printing dots", appears to be confused in that both first and second imaging modules are producing the

"imaging spots" or the "printing dots" on the printing form, and that the spacing between the spots (or dots) should be the same. However, the spacing "I" would be interpreted as the spacing between two adjacent light sources on each of the first and second imaging modules.

Claims 4-5 are dependent from claim 3 above, and are therefore indefinite.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Laberge (U.S. 6,181,362 B1)

Laberge discloses an apparatus and method for recording image using a laser diode array based on an interleaving method, the laser diode array having a first imaging module and a second imaging module for printing dots on the printing form (the first imaging module including the primary diodes, and the second imaging modules including the secondary diodes) (Fig. 3A), the method comprising producing in the transition region (image area) a plurality of at least partially not-simply connected first printing dots using the first imaging module (the printing dots formed by the primary

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diodes being not adjacent to each other), and producing in the transition region complementary (the printing dots formed by the secondary diodes being not overlapping the printing dots formed by the primary diodes) not-simply connected second printing dots using the second imaging module (again, the printing dots formed by the secondary diodes being not adjacent to each other). With regard to claim 6, Laberge teaches the first and second imaging modules being movable (by a step size S) relative to the printing form.

With regard to claim 2, Laberge further teaches one simply connected first region of the printing form being assigned to the first imaging module and a second simply connected region of the printing form being assigned to the second imaging module (the raster lines being parallel tracks on the recording surface, wherein the primary elements and the secondary elements are assigned to each parallel track) (col. 4, lines 18-27).

With regard to claims 3 and 7, Laberge further teaches the light sources (or diodes) of each of the first and second imaging modules (primary and secondary elements) being spaced at a distance d, which is a multiple of a spacing Y ($Y = d/k$, where k is the interleaving factor) of two neighboring (or adjacent) printing dots of the first and second printing dots (Figs. 3-6).

With regard to claim 4, Laberge discloses the recording process being based on an interleaf method for printing dots within the image area of the recording surface.

With regard to claim 5, Laberge further teaches the interleaf method having a step size S such that:

$$S = N.d / k = N.Y \quad (\text{where } N \text{ is the number of the primary or secondary diodes})$$

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The above relationship indicates that the step size S is equal to the number N of the light sources in each of the first and second imaging modules, the step size S being measured in units of the spacing Y of neighboring printing dots. Furthermore, the step size S and the spacing d of neighboring imaging spots are relatively prime, both being measured in units of the spacing Y of neighboring printing dots ($S = 2.5 d$ in Fig. 3A).

Additional Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Haas (U.S. 4,900,130) discloses a method of scanning using an array of light sources based on an interleaf method.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on T-F (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin R. Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722, (703) 308-7724, (703) 308-7382, (703) 305-3431, (703) 305-3432 for regular communications and for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



HAI PHAM
PRIMARY EXAMINER

May 17, 2003